

Table 30 (page 1 of 4). Age-adjusted death rates for selected causes of death, according to sex, race, and Hispanic origin: United States, selected years 1950–2000

[Data are based on death certificates]

Sex, race, Hispanic origin, and cause of death	1950 ¹	1960 ¹	1970	1980	1990	1995	1997	1998	Comparability modified 1998 ²		
									1999 ³	2000 ³	1998 ²
All persons											
All causes	1,446.0	1,339.2	1,222.6	1,039.1	938.7	918.5	887.3	875.8	875.8	881.9	872.0
Diseases of heart	586.8	559.0	492.7	412.1	321.8	296.3	280.4	272.4	268.5	267.8	257.9
Ischemic heart disease	---	---	---	345.2	249.6	221.9	205.6	197.9	197.7	195.6	186.9
Cerebrovascular diseases	180.7	177.9	147.7	96.2	65.3	63.8	61.7	59.5	63.0	61.8	60.8
Malignant neoplasms	193.9	193.9	198.6	207.9	216.0	211.7	205.7	202.4	203.8	202.7	201.0
Trachea, bronchus, and lung	15.0	24.1	37.1	49.9	59.3	58.9	58.1	57.6	56.7	56.0	56.5
Colon, rectum, and anus	---	30.3	28.9	27.4	24.5	22.7	21.6	21.2	21.2	21.1	20.9
Prostate ⁴	28.6	28.7	28.8	32.8	38.4	37.1	33.8	32.0	32.4	30.9	29.7
Breast ⁵	31.9	31.7	32.1	31.9	33.3	30.8	28.6	27.9	28.1	27.0	27.1
Chronic lower respiratory diseases	---	---	---	28.3	37.2	40.5	41.5	42.0	44.0	45.8	44.3
Influenza and pneumonia	48.1	53.7	41.7	31.4	36.8	33.8	33.6	34.6	24.2	23.6	23.7
Chronic liver disease and cirrhosis	11.3	13.3	17.8	15.1	11.1	10.0	9.6	9.5	9.8	9.7	9.6
Diabetes mellitus	23.1	22.5	24.3	18.1	20.7	23.4	24.0	24.2	24.4	25.2	25.2
Human immunodeficiency virus (HIV) disease	---	---	---	---	10.2	16.3	6.1	4.9	5.6	5.4	5.3
Unintentional injuries	78.0	62.3	60.1	46.4	36.3	34.9	34.8	35.0	36.1	35.9	35.5
Motor vehicle-related injuries	24.6	23.1	27.6	22.3	18.5	16.5	16.3	16.1	15.7	15.5	15.7
Suicide	13.2	12.5	13.1	12.2	12.5	12.0	11.4	11.3	11.3	10.7	10.6
Homicide	5.1	5.0	8.8	10.4	9.4	8.4	7.2	6.5	6.5	6.2	6.1
Male											
All causes	1,674.2	1,609.0	1,542.1	1,348.1	1,202.8	1,150.3	1,090.5	1,064.6	1,064.6	1,061.8	1,042.5
Diseases of heart	697.0	687.6	634.0	538.9	412.4	372.7	349.6	336.6	331.8	328.1	315.0
Ischemic heart disease	---	---	---	459.7	328.2	287.8	265.7	254.1	253.8	249.0	237.7
Cerebrovascular diseases	186.4	186.1	157.4	102.2	68.5	66.1	63.8	59.9	63.4	62.4	61.1
Malignant neoplasms	208.1	225.1	247.6	271.2	280.4	268.8	258.0	252.4	254.1	251.6	247.4
Trachea, bronchus, and lung	24.6	43.6	67.5	85.2	91.1	84.7	81.6	79.9	78.6	77.0	76.6
Colon, rectum, and anus	---	31.8	32.3	32.8	30.4	27.5	26.0	25.4	25.4	25.2	24.9
Prostate	28.6	28.7	28.8	32.8	38.4	37.1	33.8	32.0	32.4	30.9	29.7
Chronic lower respiratory diseases	---	---	---	49.9	55.5	55.0	54.6	54.0	56.6	58.1	54.9
Influenza and pneumonia	55.0	65.8	54.0	42.1	47.8	42.9	42.0	42.3	29.5	28.0	28.1
Chronic liver disease and cirrhosis	15.0	18.5	24.8	21.3	15.9	14.3	13.6	13.4	13.9	13.7	13.5
Diabetes mellitus	18.8	19.9	23.0	18.1	21.7	25.2	26.2	26.7	26.9	27.7	27.6
Human immunodeficiency virus (HIV) disease	---	---	---	---	18.5	27.7	9.7	7.7	8.8	8.4	8.0
Unintentional injuries	101.8	85.5	87.4	69.0	52.9	50.2	49.2	49.4	50.9	50.6	50.0
Motor vehicle-related injuries	38.5	35.4	41.5	33.6	26.5	23.1	22.4	22.4	21.8	21.8	22.2
Suicide	21.2	20.0	19.8	19.9	21.5	20.6	19.4	19.2	19.1	18.2	18.1
Homicide	7.9	7.5	14.3	16.6	14.8	13.1	11.2	10.0	10.0	9.4	9.3
Female											
All causes	1,236.0	1,105.3	971.4	817.9	750.9	748.2	736.3	732.7	732.7	743.6	739.1
Diseases of heart	484.7	447.0	381.6	320.8	257.0	239.7	228.1	223.1	219.9	220.9	213.0
Ischemic heart disease	---	---	---	263.1	193.9	173.6	160.9	155.6	155.4	154.9	147.9
Cerebrovascular diseases	175.8	170.7	140.0	91.7	62.6	61.4	59.5	58.2	61.6	60.5	59.7
Malignant neoplasms	182.3	168.7	163.2	166.7	175.7	175.4	171.6	169.2	170.4	169.9	169.6
Trachea, bronchus, and lung	5.8	7.5	13.1	24.4	37.1	40.7	41.4	41.5	40.8	40.8	41.8
Colon, rectum, and anus	---	29.1	26.5	23.8	20.6	19.3	18.4	18.2	18.2	18.1	17.9
Breast	31.9	31.7	32.1	31.9	33.3	30.8	28.6	27.9	28.1	27.0	27.1
Chronic lower respiratory diseases	---	---	---	14.9	26.6	32.2	33.9	34.8	36.5	38.2	37.9
Influenza and pneumonia	41.9	43.8	32.7	25.1	30.5	28.4	28.6	29.9	20.9	20.8	20.9
Chronic liver disease and cirrhosis	7.8	8.7	11.9	9.9	7.1	6.2	6.2	6.0	6.2	6.1	6.2
Diabetes mellitus	27.0	24.7	25.1	18.0	19.9	22.0	22.3	22.3	22.5	23.3	23.3
Human immunodeficiency virus (HIV) disease	---	---	---	---	2.2	5.3	2.7	2.3	2.6	2.6	2.6
Unintentional injuries	54.0	40.0	35.1	26.1	21.5	21.3	21.8	22.1	22.8	22.7	22.3
Motor vehicle-related injuries	11.5	11.7	14.9	11.8	11.0	10.4	10.6	10.3	10.0	9.8	9.7
Suicide	5.6	5.6	7.4	5.7	4.8	4.4	4.4	4.3	4.3	4.1	4.0
Homicide	2.4	2.6	3.7	4.4	4.0	3.8	3.2	3.1	3.1	2.9	2.8

See footnotes at end of table.

Table 30 (page 2 of 4). Age-adjusted death rates for selected causes of death, according to sex, race, and Hispanic origin: United States, selected years 1950–2000

[Data are based on death certificates]

Sex, race, Hispanic origin, and cause of death	1950 ¹	1960 ¹	1970	1980	1990	1995	1997	1998	Comparability modified 1998 ²		
									1999 ³	2000 ³	1998 ²
White											
All causes	1,410.8	1,311.3	1,193.3	1,012.7	909.8	890.0	864.9	854.7	854.7	860.7	852.1
Diseases of heart	584.8	559.0	492.2	409.4	317.0	291.2	276.4	268.1	264.3	263.4	253.6
Ischemic heart disease	---	---	---	347.6	249.7	221.1	205.3	197.5	197.3	194.5	185.7
Cerebrovascular diseases	175.5	172.7	143.5	93.2	62.8	61.3	59.6	57.4	60.8	59.8	58.7
Malignant neoplasms	194.6	193.1	196.7	204.2	211.6	207.8	202.2	199.3	200.7	199.8	198.4
Trachea, bronchus, and lung	15.2	24.0	36.7	49.2	58.6	58.6	58.0	57.5	56.6	56.0	56.6
Colon, rectum, and anus	---	30.9	29.2	27.4	24.1	22.2	21.1	20.8	20.8	20.6	20.4
Prostate ⁴	28.4	27.7	27.4	30.5	35.5	34.2	31.1	29.4	29.8	28.4	27.2
Breast ⁵	32.4	32.0	32.5	32.1	33.2	30.4	28.0	27.3	27.5	26.4	26.6
Chronic lower respiratory diseases	---	---	---	29.3	38.3	41.8	43.0	43.6	45.7	47.5	46.1
Influenza and pneumonia	44.8	50.4	39.8	30.9	36.4	33.3	33.3	34.4	24.0	23.4	23.5
Chronic liver disease and cirrhosis	11.5	13.2	16.6	13.9	10.5	9.7	9.6	9.4	9.7	9.7	9.7
Diabetes mellitus	22.9	21.7	22.9	16.7	18.8	21.1	21.5	21.9	22.1	22.8	22.8
Human immunodeficiency virus (HIV) disease	---	---	---	---	8.3	11.6	3.5	2.7	3.1	3.0	2.8
Unintentional injuries	77.0	60.4	57.8	45.3	35.5	34.3	34.3	34.8	35.9	35.7	35.5
Motor vehicle-related injuries	24.4	22.9	27.1	22.6	18.5	16.5	16.2	16.1	15.7	15.6	15.9
Suicide	13.9	13.1	13.8	13.0	13.4	12.8	12.3	12.2	12.2	11.5	11.5
Homicide	2.6	2.7	4.7	6.7	5.5	5.1	4.3	4.0	4.0	3.8	3.7
Black											
All causes	1,722.1	1,577.5	1,518.1	1,314.8	1,250.3	1,224.5	1,151.5	1,135.7	1,135.7	1,147.1	1,129.9
Diseases of heart	586.7	548.3	512.0	455.3	391.5	367.2	345.0	340.6	335.8	336.7	326.5
Ischemic heart disease	---	---	---	334.5	267.0	247.1	228.3	221.9	221.7	226.4	219.3
Cerebrovascular diseases	233.6	235.2	197.1	129.1	91.6	87.7	81.5	80.1	84.8	82.4	82.4
Malignant neoplasms	176.4	199.1	225.3	256.4	279.5	269.6	262.1	255.1	256.8	254.4	249.6
Trachea, bronchus, and lung	11.1	23.7	41.3	59.7	72.4	69.3	67.9	66.7	65.6	65.2	64.1
Colon, rectum, and anus	---	22.8	26.1	28.3	30.6	29.5	28.8	28.2	28.2	28.6	28.3
Prostate ⁴	30.9	41.2	48.5	61.1	77.0	75.7	71.1	68.7	69.6	66.5	65.3
Breast ⁵	25.3	27.9	28.9	31.7	38.1	38.3	37.7	35.7	35.9	35.6	34.9
Chronic lower respiratory diseases	---	---	---	19.2	28.1	30.3	30.3	30.8	32.3	33.7	31.7
Influenza and pneumonia	76.7	81.1	57.2	34.4	39.4	36.8	36.0	37.0	25.8	25.6	25.8
Chronic liver disease and cirrhosis	9.0	13.6	28.1	25.0	16.5	12.1	10.7	9.9	10.3	10.2	9.5
Diabetes mellitus	23.5	30.9	38.8	32.7	40.5	47.1	48.5	48.4	48.8	50.1	49.7
Human immunodeficiency virus (HIV) disease	---	---	---	---	26.7	54.9	26.6	22.1	25.3	24.2	23.7
Unintentional injuries	79.9	74.0	78.3	57.6	43.8	41.6	39.8	39.5	40.7	40.9	38.4
Motor vehicle-related injuries	26.0	24.2	31.1	20.2	18.8	16.9	17.3	17.2	16.8	16.2	16.0
Suicide	4.5	5.0	6.2	6.5	7.1	6.9	6.3	5.8	5.8	5.7	5.6
Homicide	28.3	26.0	44.0	39.0	36.3	30.2	25.2	22.6	22.6	20.6	21.0
American Indian or Alaska Native											
All causes	---	---	---	867.0	716.3	716.5	711.6	705.2	705.2	716.1	696.8
Diseases of heart	---	---	---	240.6	200.6	183.6	182.1	174.4	171.9	171.4	165.2
Ischemic heart disease	---	---	---	173.6	139.1	127.8	128.8	122.9	122.8	123.9	120.0
Cerebrovascular diseases	---	---	---	57.8	40.7	42.3	39.2	37.7	39.9	39.7	40.3
Malignant neoplasms	---	---	---	113.7	121.8	128.6	131.8	129.3	130.2	126.4	127.3
Trachea, bronchus, and lung	---	---	---	20.7	30.9	35.3	36.3	38.2	37.6	34.9	32.7
Colon, rectum, and anus	---	---	---	9.5	12.0	13.3	14.5	13.3	13.3	12.0	13.0
Prostate ⁴	---	---	---	20.7	17.8	18.5	19.3	15.9	16.1	12.5	16.9
Breast ⁵	---	---	---	10.8	13.7	14.6	13.1	14.2	14.3	15.4	14.7
Chronic lower respiratory diseases	---	---	---	14.2	25.4	24.8	27.2	28.1	29.4	30.3	30.4
Influenza and pneumonia	---	---	---	44.4	36.1	30.4	26.9	28.3	19.8	22.0	19.5
Chronic liver disease and cirrhosis	---	---	---	45.3	24.1	28.9	24.2	25.9	26.9	28.2	28.6
Diabetes mellitus	---	---	---	29.6	34.1	42.9	48.4	45.9	46.3	50.2	41.4
Human immunodeficiency virus (HIV) disease	---	---	---	---	1.8	7.1	2.5	2.3	2.6	3.1	2.7
Unintentional injuries	---	---	---	99.0	62.6	58.0	62.7	59.9	61.7	61.1	59.6
Motor vehicle-related injuries	---	---	---	54.5	32.5	31.4	32.8	31.9	31.1	31.7	32.3
Suicide	---	---	---	11.9	11.7	11.5	12.4	12.6	12.6	11.8	12.0
Homicide	---	---	---	15.5	10.4	10.7	10.4	9.1	9.1	10.6	8.1

See footnotes at end of table.

Table 30 (page 3 of 4). Age-adjusted death rates for selected causes of death, according to sex, race, and Hispanic origin: United States, selected years 1950–2000

[Data are based on death certificates]

Sex, race, Hispanic origin, and cause of death	1950 ¹	1960 ¹	1970	1980	1990	1995	1997	1998	Comparability modified 1998 ²		
									1999 ³	2000 ³	2001 ³
Asian or Pacific Islander											
All causes	---	---	---	589.9	582.0	616.0	533.9	516.8	516.8	517.5	507.4
Diseases of heart	---	---	---	202.1	181.7	193.3	158.3	154.4	152.2	154.0	144.9
Ischemic heart disease	---	---	---	168.2	139.6	144.3	116.5	115.3	115.2	115.5	109.0
Cerebrovascular diseases	---	---	---	66.1	56.9	62.0	54.5	50.6	53.6	52.4	52.5
Malignant neoplasms	---	---	---	126.1	134.2	143.0	127.2	124.2	125.0	125.3	125.0
Trachea, bronchus, and lung	---	---	---	28.4	30.2	32.4	28.9	29.3	28.8	28.5	28.9
Colon, rectum, and anus	---	---	---	16.4	14.4	15.3	13.5	13.7	13.7	12.2	13.0
Prostate ⁴	---	---	---	10.2	16.8	21.1	14.5	12.4	12.6	13.5	12.4
Breast ⁵	---	---	---	11.9	13.7	14.6	12.6	13.1	13.2	13.1	12.7
Chronic lower respiratory diseases	---	---	---	12.9	19.4	21.6	19.6	17.2	18.0	19.2	18.5
Influenza and pneumonia	---	---	---	24.0	31.4	33.7	27.9	29.8	20.8	15.6	19.3
Chronic liver disease and cirrhosis	---	---	---	6.1	5.2	4.1	3.4	3.5	3.6	3.8	3.7
Diabetes mellitus	---	---	---	12.6	14.6	18.3	18.3	16.9	17.0	18.4	16.6
Human immunodeficiency virus (HIV) disease	---	---	---	---	2.2	3.3	0.9	0.8	0.9	0.8	0.7
Unintentional injuries	---	---	---	27.0	23.9	21.8	20.9	17.6	18.1	17.7	18.4
Motor vehicle-related injuries	---	---	---	13.9	14.0	12.1	10.8	9.5	9.3	8.8	9.1
Suicide	---	---	---	7.8	6.7	7.2	7.0	6.6	6.6	6.4	5.8
Homicide	---	---	---	5.9	5.0	5.0	4.1	3.5	3.5	3.3	3.1
Hispanic ⁶											
All causes	---	---	---	692.0	670.1	612.3	596.4	596.4	601.0	585.6	
Diseases of heart	---	---	---	217.1	198.5	183.3	175.8	173.3	176.1	165.4	
Ischemic heart disease	---	---	---	173.3	156.4	143.0	136.5	136.4	138.4	128.8	
Cerebrovascular diseases	---	---	---	45.2	43.6	39.9	39.1	41.4	40.0	39.2	
Malignant neoplasms	---	---	---	136.8	132.3	125.5	123.7	124.5	122.0	120.8	
Trachea, bronchus, and lung	---	---	---	26.5	24.6	23.9	22.7	22.3	22.5	22.0	
Colon, rectum, and anus	---	---	---	14.7	13.4	12.8	12.8	12.8	12.8	12.4	
Prostate ⁴	---	---	---	23.3	25.7	20.8	20.9	21.2	19.0	17.6	
Breast ⁵	---	---	---	19.5	18.1	17.8	16.8	16.9	15.4	15.8	
Chronic lower respiratory diseases	---	---	---	19.3	21.2	19.6	18.6	19.5	19.9	17.7	
Influenza and pneumonia	---	---	---	29.7	24.5	24.6	24.1	16.8	15.6	17.0	
Chronic liver disease and cirrhosis	---	---	---	18.3	17.0	15.9	15.4	16.0	15.3	15.7	
Diabetes mellitus	---	---	---	28.2	33.9	32.5	32.1	32.4	33.6	32.4	
Human immunodeficiency virus (HIV) disease	---	---	---	16.3	25.6	8.9	6.7	7.7	7.3	7.0	
Unintentional injuries	---	---	---	34.6	32.7	30.1	30.2	31.1	31.1	30.6	
Motor vehicle-related injuries	---	---	---	19.5	16.9	15.5	15.1	14.7	15.0	15.5	
Suicide	---	---	---	7.8	7.4	6.4	6.3	6.3	6.1	6.1	
Homicide	---	---	---	16.2	13.3	9.9	8.8	8.8	8.4	8.4	

See footnotes at end of table.

Table 30 (page 4 of 4). Age-adjusted death rates for selected causes of death, according to sex, race, and Hispanic origin: United States, selected years 1950–2000

[Data are based on death certificates]

Sex, race, Hispanic origin, and cause of death	1950 ¹	1960 ¹	1970	1980	1990	1995	1997	1998	Comparability modified 1998 ²						
									1999 ³	2000 ³					
White, non-Hispanic ⁶					Age-adjusted death rate per 100,000 population										
All causes.....	---	---	---	---	914.5	890.8	871.7	862.7	862.7	869.4	861.9				
Diseases of heart	---	---	---	---	319.7	293.0	279.7	271.7	267.8	266.9	257.5				
Ischemic heart disease	---	---	---	---	251.9	222.3	207.4	199.8	199.6	196.6	188.1				
Cerebrovascular diseases	---	---	---	---	63.5	61.4	60.1	58.0	61.4	60.5	59.4				
Malignant neoplasms	---	---	---	---	215.4	210.8	205.7	203.0	204.4	203.8	202.6				
Trachea, bronchus, and lung	---	---	---	---	60.3	60.2	59.9	59.6	58.6	58.0	58.9				
Colon, rectum, and anus	---	---	---	---	24.6	22.5	21.4	21.1	21.1	21.0	20.8				
Prostate ⁴	---	---	---	---	36.1	34.5	31.5	29.7	30.1	28.8	27.7				
Breast ⁵	---	---	---	---	33.9	30.9	28.5	27.9	28.1	27.0	27.2				
Chronic lower respiratory diseases	---	---	---	---	39.2	42.5	44.1	44.8	46.9	48.9	47.7				
Influenza and pneumonia	---	---	---	---	36.5	33.3	33.5	34.7	24.2	23.7	23.7				
Chronic liver disease and cirrhosis	---	---	---	---	9.9	9.0	8.9	8.8	9.1	9.1	9.0				
Diabetes mellitus	---	---	---	---	18.3	20.2	20.6	21.1	21.3	21.9	22.0				
Human immunodeficiency virus (HIV) disease	---	---	---	---	7.4	9.8	2.8	2.1	2.4	2.4	2.3				
Unintentional injuries	---	---	---	---	35.0	33.6	34.2	34.6	35.7	35.5	35.4				
Motor vehicle-related injuries	---	---	---	---	18.2	16.2	16.1	16.0	15.6	15.4	15.6				
Suicide	---	---	---	---	13.8	13.1	12.8	12.8	12.8	12.1	12.1				
Homicide	---	---	---	---	4.0	3.6	3.3	3.1	3.1	2.9	2.8				

--- Data not available.

¹Includes deaths of persons who were not residents of the 50 States and the District of Columbia.

²Calculated by multiplying the 1998 rate by its comparability ratio to adjust for differences between ICD-9 and ICD-10. See Appendix II, Comparability ratio and table VI.

³Starting with 1999 data, cause of death is coded according to ICD-10. To estimate change between 1998 and 1999, compare the 1999 rate with the comparability-modified rate for 1998. See Appendix II, Comparability ratio and tables V and VI.

⁴Rate for male population only.

⁵Rate for female population only.

⁶Excludes data from States lacking an Hispanic-origin item on their death certificates. See Appendix I, National Vital Statistics System.

NOTES: Age-adjusted rates are calculated using the year 2000 standard population starting with *Health, United States, 2001*. See Appendix II, Age adjustment. Rates for 1980–98 for Ischemic heart disease (410–414, 429.2), Cerebrovascular diseases (430–434, 436–438), and Unintentional injuries (E800–E869, E880–E929) are based on ICD-9 codes that are most nearly comparable with ICD-10 codes for these causes. Starting with *Health, United States, 2002* rates for these three causes differ from previous editions of *Health, United States*. For data years shown, code numbers for cause of death are based on the current revision of the *International Classification of Diseases* (ICD). See Appendix II, tables IV and V. The race groups, white, black, Asian or Pacific Islander, and American Indian or Alaska Native, include persons of Hispanic and non-Hispanic origin. Conversely, persons of Hispanic origin may be of any race. Bias in death rates results from inconsistent race identification between the death certificate (source of data for numerator of death rates) and data from the Census Bureau (denominator); and from undercounts of some population groups in the census. The net effects of misclassification and under coverage result in death rates estimated to be overstated by 1 percent for the white population and 5 percent for the black population; and death rates estimated to be understated by 21 percent for American Indians, 11 percent for Asians, and 2 percent for Hispanics (Rosenberg HM, Maurer JD, Sorlie PD, Johnson NJ, et al. Quality of death rates by race and Hispanic origin: A summary of current research, 1999. National Center for Health Statistics. *Vital Health Stat* 2(128). 1999). Data for additional years are available (see Appendix III).

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System; Grove RD, Hetzel AM. Vital statistics rates in the United States, 1940–1960. Washington: U.S. Government Printing Office. 1968; *Vital statistics of the United States, vol II, mortality, part A*, for data years 1960–93. Public Health Service. Washington: U.S. Government Printing Office; for 1994–99, data for all persons, white, and black are available on the NCHS Web site at www.cdc.gov/nchs/datawh/statab/unpubd/mortabs.htm; numerator data from National Vital Statistics System, annual mortality files; denominator data from table 1 and unpublished Hispanic population estimates for 1985–96 prepared by the Housing and Household Economic Statistics Division, U.S. Bureau of the Census. Minino AM, Arias E, Kochanek KD, Murphy SL, Smith BL. Deaths: Final data for 2000. National vital statistics reports. vol 50 no 15. Hyattsville, Maryland: National Center for Health Statistics. 2002.